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PCT/JP2003/014682



## PATENT COOPERATION TREATY

## PCT

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY  
(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

Rec'd PCT/PTO 10 NOV 2005

Applicant's or agent's file reference 903274	FOR FURTHER ACTION		See Form PCT/IPEA/416
International application No. PCT/JP2003/014682	International filing date (day/month/year) 18 November 2003 (18.11.2003)	Priority date (day/month/year) 22 November 2002 (22.11.2002)	
International Patent Classification (IPC) or national classification and IPC C09D 201/00, 5/03, C09C 1/64, 3/10			
Applicant TOYO ALUMINIUM KABUSHIKI KAISHA			

1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.

2. This REPORT consists of a total of 6 sheets, including this cover sheet.

3. This report is also accompanied by ANNEXES, comprising:

a.  (*sent to the applicant and to the International Bureau*) a total of \_\_\_\_\_ sheets, as follows:

sheets of the description, claims and/or drawings which have been amended and are the basis of this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).

sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.

b.  (*sent to the International Bureau only*) a total of (indicate type and number of electronic carrier(s)) \_\_\_\_\_, containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).

4. This report contains indications relating to the following items:

- Box No. I Basis of the report
- Box No. II Priority
- Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- Box No. IV Lack of unity of invention
- Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- Box No. VI Certain documents cited
- Box No. VII Certain defects in the international application
- Box No. VIII Certain observations on the international application

Date of submission of the demand 06 May 2004 (06.05.2004)	Date of completion of this report 01 February 2005 (01.02.2005)
Name and mailing address of the IPEA/JP	Authorized officer
Facsimile No.	Telephone No.

## INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

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## Box No. I Basis of the report

1. With regard to the language, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.

- This report is based on translations from the original language into the following language \_\_\_\_\_, which is language of a translation furnished for the purpose of:
- international search (under Rules 12.3 and 23.1(b))
  - publication of the international application (under Rule 12.4)
  - international preliminary examination (under Rules 55.2 and/or 55.3)

2. With regard to the elements of the international application, this report is based on (replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report):

- The international application as originally filed/furnished

- the description:

pages \_\_\_\_\_ received by this Authority on \_\_\_\_\_, as originally filed/furnished  
 pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_  
 pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_

- the claims:

pages \_\_\_\_\_ received by this Authority on \_\_\_\_\_, as originally filed/furnished  
 pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_, as amended (together with any statement) under Article 19  
 pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_  
 pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_

- the drawings:

pages \_\_\_\_\_ received by this Authority on \_\_\_\_\_, as originally filed/furnished  
 pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_  
 pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_

- a sequence listing and/or any related table(s) – see Supplemental Box Relating to Sequence Listing.

3.  The amendments have resulted in the cancellation of:

- the description, pages \_\_\_\_\_
- the claims, Nos. \_\_\_\_\_
- the drawings, sheets/figs \_\_\_\_\_
- the sequence listing (specify): \_\_\_\_\_
- any table(s) related to sequence listing (specify): \_\_\_\_\_

4.  This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).

- the description, pages \_\_\_\_\_
- the claims, Nos. \_\_\_\_\_
- the drawings, sheets/figs \_\_\_\_\_
- the sequence listing (specify): \_\_\_\_\_
- any table(s) related to sequence listing (specify): \_\_\_\_\_

\* If item 4 applies, some or all of those sheets may be marked "superseded."

## INTERNATIONAL PRELIMINARY EXAMINATION REPORT

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## V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

## 1. Statement

Novelty (N)	Claims	1-6	YES
	Claims		NO
Inventive step (IS)	Claims		YES
	Claims		NO
Industrial applicability (IA)	Claims	1-6	YES
	Claims		NO

## 2. Citations and explanations

Document 1: JP 8-143788 A (Nippon Carbide Industries Co., Ltd.), 04 June 1996, claims and paragraph [0050], (Family: none)

Document 2: JP 2000-204289 A (Dai Nippon Toryo Co., Ltd.), 25 July 2000, claims and paragraph [0011], (Family: none)

Document 3: JP 2000-219825 A (Kurimoto Ltd.), 08 August 2000, claims and paragraph [0012], (Family: none)

Document 4: JP 52-128927 A (Kansai Paint Co., Ltd.), 28 October 1977, claims, (Family: none)

Document 5: JP 2001-139887 A (Asahi Kasei Metals Kabushiki Kaisha), 22 May 2001, claims and paragraphs [0006] and [0007], (Family: none)

Document 6: JP 9-291230 A (Dai Nippon Toryo Co., Ltd.), 11 November 1997, claims and paragraphs [0008] and [0011], (Family: none)

Document 7: US 3932347 A (Ford Motor Co.), 13 January 1976, examples and claims, & JP 50-94032 A

Document 8: JP 2002-105381 A (Toyo Aluminium Kabushiki Kaisha), 10 April 2002, claims and paragraph [0035], (Family: none)

Document 9: JP 9-71734 A (Toyo Aluminium Kabushiki Kaisha), 18 March 1997, claims and paragraph

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[0035], (Family: none)

Document 10: JP 57-16072 A (Toyo Aluminium Kabushiki  
Kaisha), 27 January 1982, claims, (Family:  
none)

Novelty

Claims 1 to 6 are novel.

Documents 1 to 10 cited in the international search report do not disclose a powder coating material which comprises powder coating particles that are configured by bonding a flake-like pigment to the surface of a thermosetting resin powder by means of an adhesive bonding agent, wherein the average particle diameter of the powder coating particles is within a specified range and the degree of bonding between the thermosetting resin powder and the flake-like pigment is also within a specified range.

Inventive Step

Claims 1 to 6 do not involve an inventive step in the light of documents 1 to 10 cited in the international search report.

Document 4 discloses a powder coating material which comprises powder coating particles that are configured by bonding a flake-like pigment to the surface of a thermosetting resin powder by means of an adhesive bonding agent, and discloses the feature of subjecting the powder coating particles to a sieving operation. Therein, it is considered to be obvious to employ a bonding agent that exhibits a given degree of adhesion when bonded as the bonding agent for bonding the flake-like pigment to the surface of a thermosetting resin powder, and it would be easy for a person skilled in the art to select a bonding agent that exhibits suitable adhesion characteristics from among well-known adhesive substances as is appropriate in

order to adhere the flake-like pigment and the thermosetting resin powder in an suitable manner. Therein, resins such as those which are set forth in claim 5 are well known and commonly used as adhesive substances.

In addition, a person skilled in the art could configure so that the powder coating particles that constitute the powder coating material have an average particle diameter that falls within an suitable range by means of a sieving operation or the like, as appropriate, and a person skilled in the art could also configure so that the thermosetting resin powder and the flake-like pigment are almost completely bonded, or, in other words, so that the degree of bonding therebetween is nearly 100%, as appropriate.

Furthermore, it is considered to be easy for a person skilled in the art to conceive of using aluminum flakes with a resin composition coated upon the surfaces thereof as a pigment in the light of the disclosures of the abovementioned documents.

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## Box No. VI Certain documents cited

## 1. Certain published documents (Rule 70.10)

Application No. Patent No.	Publication date (day/month/year)	Filing date (day/month/year)	Priority date (valid claim) (day/month/year)
WO 02/094950 A1 E, X	28 November 2002 (28.11.2002)	04 February 1999 (04.02.1999)	27 May 1998 (27.05.1998)

## 2. Non-written disclosures (Rule 70.9)

Kind of non-written disclosure	Date of non-written disclosure (day/month/year)	Date of written disclosure referring to non-written disclosure (day/month/year)